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Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450

Alexandria, VA 22313-1450

**Express Mail No.: EL979824479US**  
**Attorney Docket No.: 0492611-0530/**  
**MIT10077**

**Date Filed: December 9, 2003**

## UTILITY PATENT APPLICATION TRANSMITTAL

(for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Dear Sir:

Please find enclosed a patent application and papers as follows for:

### Inventor(s):

<u>Given Name (first and middle)</u>	<u>Family Name or Surname</u>	<u>Residence (City and State or Foreign Country)</u>
Shulamit	Levenberg	Brighton, MA
Ngan F.	Huang	Berkeley, CA
Erin	Lavik	New Haven, CT
Joseph	Itskovitz-Eldor	Haifa, Israel
Robert	Langer	Newton, MA

Title of the Invention: **Engineering Three-Dimensional Tissue Structures Using  
Differentiating Embryonic Stem Cells**

### A) APPLICATION ELEMENTS:

- 1) ☒ **Fee Transmittal Form** (original and duplicate submitted for fee processing)
- 2) ☒ **Applicant Claims Small Entity Status** (see 37 C.F.R. § 1.27)
  - a) ☐ **Statement Verifying Small Entity Status** (optional)

3) ☒ **Specification**

TOTAL PAGES: 52

- ☒ Descriptive Title of the Invention
- ☒ Cross References to Related Applications (if applicable)
- ☐ Statement Regarding Federally Sponsored R & D (if applicable)
- ☐ Reference to sequence listing, a table, or a computer program listing appendix
- ☒ Background of the Invention
- ☒ Summary of the Invention
- ☒ Description of the Drawing (if filed)
- ☒ Detailed Description of the Invention
- ☒ Claim(s)
- ☒ Abstract of the Invention

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4) ☒ **Drawing(s)** (35 U.S.C. § 113)

TOTAL SHEETS: 13

- a) ☐ Formal Drawings (if checked)

5) ☐ **Oath or Declaration**

TOTAL PAGES: \_\_\_\_\_

- a) ☐ Newly Executed (original or copy)
- b) ☐ Copy from a prior application (37 C.F.R. § 1.63(d))-for continuation/divisional application
- i) ☐ Deletion of inventor(s): Signed Statement deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).
- c) ☐ Unexecuted

6) ☐ **Application Data Sheet**. See 37 C.F.R. § 1.76.

7) ☐ **CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)**

8) ☐ **Nucleotide and/or Amino Acid Sequence Submission** (if applicable, all are necessary)

- a) ☐ Computer Readable Form (CRF)
- b) ☐ Specification Sequence Listing on:
- i) ☐ CD-ROM or CD-R (2 copies); or
- ii) ☐ Paper
- c) ☐ Statements verifying identity of above copies

B) ACCOMPANYING APPLICATION PARTS:

- 9) ☐ **Assignment Papers** (cover sheet & document(s))
- 10) ☐ **37 C.F.R. § 3.73(b) Statement** (when there is an assignee)
- 11) ☐ **Power of Attorney**
- 12) ☐ **English Translation Document** (if applicable)
- 13) ☐ **Information Disclosure Statement (IDS)/PTO-1449**
- 14) ☐ **Copies of IDS Citations**
- 15) ☐ **Preliminary Amendment**
- 16) ☒ **Return Receipt Postcard (MPEP 503)** (specifically itemized)
- 17) ☐ **Certified Copy of Priority Document(s)** (if foreign priority is claimed)
- 18) ☐ **Nonpublication Request under 35 U.S.C. § 122(b)(2)(B)(i)**
- 19) ☐ **OTHER:** (if applicable, specified below)

C) FOR CONTINUING APPLICATIONS: (the appropriate box is checked, and certain information is provided below and in a preliminary amendment)

☐ continuation                      ☐ divisional                      ☐ continuation-in-part (CIP)

of prior application no.: \_\_\_\_\_

filed: \_\_\_\_\_

examiner: \_\_\_\_\_

group/art unit: \_\_\_\_\_

**for continuation or divisional applications only:** The entire disclosure of the prior application, from which an oath or declaration is supplied as detailed above, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.

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**D.) PRIORITY CLAIM(S):**

This application claims the benefit under 35 U.S.C. § 120 of any United States application(s) or PCT international application(s) designating the United States of America listed below:

<u>Application Serial No.</u>	<u>Filing date</u>	<u>Status (patented, pending, abandoned)</u>
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This application claims the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

<u>Application Serial No.</u>	<u>Filing date</u>	<u>Status (pending, expired, abandoned)</u>
60/432,228	December 10, 2002	Pending
60/443,926	January 31, 2003	Pending

**E) METHOD OF PAYMENT OF FILING FEES FOR THIS APPLICATION:**

- ☒ Applicant claims small entity status 37 C.F.R. § 1.27.
- ☒ A check for 1,292.00 is enclosed to cover the filing fees.
- ☒ The commissioner is hereby authorized to charge filing fees or to credit any overpayment to deposit account number 03-1721.

Basic Filing Fee (Small Entity)	\$385.00
Additional Fees:	
Total Number of Claims in excess of 20: (76- 20) x \$9	\$504.00
Number of Independent Claims in excess of 3:(9- 3) x \$43	\$258.00
Multiple Dependent Claims \$145:	<u>\$145.00</u>
Total Filing Fee:	\$1292.00

Express Mail No.: **EL979824479US**  
Attorney Docket: **0492611-0530/**

**MIT10077**

Date Filed: **December 9, 2003**

F) CORRESPONDENCE ADDRESS:

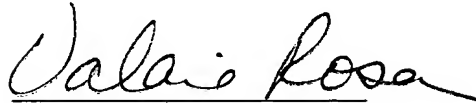
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Respectfully Submitted,



Valarie B. Rosen

Registration No. 45,698

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Express Mail No.: EL979824479US  
Attorney Docket: 0492611-0530/

Date Filed: December 9, 2003

MIT10077

**FEE TRANSMITTAL LETTER** Attorney Docket Number: 0492611-0530

To the Commissioner for Patents:

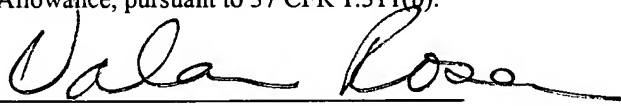
Transmitted herewith for filing under 35 U.S.C. 111 and 37 CFR 1.53 is the patent application of

Levenberg, et al.

entitled ENGINEERING THREE-DIMENSIONAL TISSUE STRUCTURES USING DIFFERENTIATING EMBRYONIC STEM CELLS

**CLAIMS AS FILED**

		NUMBER FILED	NUMBER EXTRA	RATE	FEE
BASIC FEE (37 CFR 1.16(a))				\$385	\$385.00
TOTAL CLAIMS (37 CFR 1.16(c))		76-20=	*56	x \$ 9	\$504.00
INDEPENDENT CLAIMS (37 CFR 1.16(b))		9-3=	* 6	x \$ 43	\$258.00
MULTIPLE DEPENDENT CLAIM PRESENT		(37 CFR 1.16(d))		\$145	\$145.00
* NUMBER EXTRA MUST BE ZERO OR LARGER			TOTAL		\$1,292.00
	If applicant has small entity status under 37 CFR 1.9 and 1.27 then divide total fee by 2, and enter amount here.			SMALL ENTITY	\$1,292.00

<p><input checked="" type="checkbox"/> A check in the amount of <u>\$1,292.00</u> to cover the filing fee is enclosed.</p> <p><input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge and credit Deposit Account No. <u>031721</u> as described below. I have enclosed a duplicate copy of this sheet.</p> <p><input type="checkbox"/> Charge the amount of \$_____ as filing fee.</p> <p><input checked="" type="checkbox"/> Credit any overpayment.</p> <p><input checked="" type="checkbox"/> Charge any additional filing fees required under 37 CFR 1.16 and 1.17.</p> <p><input type="checkbox"/> Charge the issue fee set in 37 CFR 1.18 at the mailing of the Notice of Allowance, pursuant to 37 CFR 1.311(b).</p> <p> Valarie B. Rosen, Reg. No. 45,698 Customer No.: 24280 <u>December 9, 2003</u> Date</p>	
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